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GAO's Views on DOE's 1991 Budget
for Addressing Problems at the
Nuclear Weapons Complex

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Statement for the Record of
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Before the
Committee on Budget
House of Representatives

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Mr. Chairman and Members of the Committee:

We are pleased to submit a statement for the record on the Department of Energy's (DOE) 1991 budget request as it relates to cleaning up and modernizing the nuclear weapons complex. Last year before this Committee, we discussed the serious problems of the complex and the staggering cost to address them. The situation this year is not any better. Several key facilities are shut down; waste is continuing to back up at various DOE sites, and the full scope of DOE's environmental problems still remains unknown. Addressing these problems is a formidable task, which we have estimated could cost up to \$155 billion. To DOE's credit, it has taken action, during this past year, to better organize itself to deal with its problems.

In previous congressional testimony, we have used the problems in DOE's nuclear weapons complex as an example of how the nation has not invested wisely in key government operations. In this regard, the federal government has consistently made short-term decisions which now leave the nation with extremely serious problems that will require long-term solutions with enormous costs. The problems include serious safety issues in operating nuclear facilities, widespread environmental contamination and the overall deteriorating condition of the complex. Addressing these problems represents one of the major areas of explosive unfunded costs that

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will have to be dealt with at the same time the country addresses the budget deficit.

The DOE 1991 budget contains over \$4.5 billion to address environmental and modernization problems of the complex. While this is an increase of over 20 percent from fiscal year 1990, it still only represents a small downpayment on what will eventually be needed. Key questions regarding the extent the complex is modernized and the pace of cleanup remain open. Regardless of how these questions are answered it is certain that modernizing and cleaning up the complex will be a long-term, costly undertaking. A national consensus is needed to maintain congressional and public support for the enormous funding required.

My testimony today provides our perspective on (1) the continuing problems of the complex, (2) DOE's progress in addressing these problems, and (3) important budget issues.

THE NUCLEAR WEAPONS COMPLEX
AND ITS CONTINUING PROBLEMS

Today, our nation's ability to make nuclear material for weapons is virtually non-existent with the shutdown of the Savannah River reactors, the Rocky Flats Plant, and the Hanford Purex reprocessing plant. The Waste Isolation Pilot Plant, a repository for disposing of certain types of radioactive waste, is still not

open and waste is continuing to back up at various DOE sites. Further, DOE is still seeking a location for disposing of high-level radioactive waste. And, finally, the environmental problems are still not fully characterized.

GAO has been pointing out problems for several years. For example, we have called attention to

- serious safety questions regarding the operation of DOE reactors and other facilities;
- the deterioration of DOE's facilities that results from aging and inattention to capital improvements;
- groundwater and soil contamination at many DOE installations around the country, some of which is at levels hundreds to thousands of times above standards; and
- the need to dispose of radioactive waste that DOE has been temporarily storing for decades at various sites around the country.

We have also pointed out that the cost to resolve such problems is staggering. Our analysis of DOE data indicates it will cost anywhere from \$115 billion to \$155 billion to address the problems of the complex. This includes \$35 billion to \$45 billion

to upgrade and modernize the complex, \$35 billion to \$65 billion for environmental restoration, and over \$45 billion to dispose of radioactive waste and decontaminate facilities. We would like to stress that these estimates are not budget quality and should only be used to illustrate the magnitude of effort needed to address the problem areas.

While recognizing the uncertain cost associated with addressing these problems, we believe it is important to note that the eventual cost could be higher. For example, the full scope and magnitude of the environmental problems are not known at many DOE facilities since DOE is in the early phases of characterizing the problems. Our experience in evaluating the superfund program administered by the Environmental Protection Agency indicates that the less known about the extent of contamination, the more likely the cost will increase when remediation begins. Further, new facilities and processes are planned to modernize the complex. DOE's construction of such projects has, in some cases, been prone to cost overruns.

DOE'S PROGRESS IN
ADDRESSING ITS PROBLEMS

Next, I would like to briefly discuss DOE's efforts during the past year to address the problems of the complex. In this regard, it is important to understand that these are long-term

problems which will require billions of dollars each year for decades. As we have stated in previous testimonies, to manage such a massive effort, DOE may need to restructure itself, change its attitude toward environmental and safety matters, and acquire the necessary technical expertise to effectively manage the rebuilding and cleanup of the complex.

During the past year, DOE has taken actions designed to better deal with its problems. These actions include a programmatic and safety restructuring within DOE, issuance of a five-year plan on environmental restoration and waste management, and efforts by DOE to make its contractors more accountable. Also, the Defense Nuclear Facilities Safety Board mandated by the Congress became operational.

DOE's organizational restructuring is two-fold. First, DOE has established an Office of Environmental Restoration and Waste Management to consolidate environmental cleanup, compliance and waste management activities. DOE has also restructured its budgeting system to reflect the funding of various programs within this office. Second, DOE is in the process of restructuring its internal safety oversight responsibilities in order to hold line managers accountable for safety. The concept of this reorganization, in our view, provides a framework for establishing the clear lines of responsibility needed to ensure the safe operation of DOE's nuclear facilities. Its success, however, will

likely depend on DOE's commitment to safety, how well that commitment is implemented, the availability of technically qualified staff, and the close coordination and interaction of various oversight groups.

DOE also issued an Environmental Restoration and Waste Management Five-Year Plan which lays out a \$20 billion effort over the next 5 years (fiscal years 1991 through 1995) to (1) bring its facilities into compliance with environmental laws, (2) clean up environmental contamination at DOE sites, and (3) manage the wide variety of radioactive and hazardous waste that DOE generates. In addition, the plan begins implementing an applied research and development program to help resolve DOE's environmental problems. In our view, the plan is an important first step in beginning to lay out an approach for cleaning up DOE facilities and bringing DOE operations into compliance with environmental laws.

DOE has also undertaken efforts to make its contractors more accountable for environmental and safety matters. In October 1989, we issued reports and testified that DOE's award fee process needs to be restructured so that it accurately reflects the contractor's performance in regard to environmental and safety matters. DOE has restructured the process, and, if properly implemented, it should increase the contractors' sensitivity to and performance regarding environmental compliance and safety matters.

Finally, the Defense Nuclear Facilities Safety Board was established. Although not a DOE action, its establishment, nevertheless, is an important step to help ensure the public and the Congress that DOE facilities in the complex can operate safely. For the first time there is now outside independent oversight of DOE's facilities. We have long supported the need for such an organization, and the Congress, in 1988, mandated the Board. We met with the board soon after it became operational to discuss our concerns and plan to meet periodically to exchange views on the problems within the complex.

Although these actions, in and of themselves, do not remedy the problems facing the complex, they are an important aspect of creating an organization and management system within which the capability to effectively plan, implement, and oversee corrective actions are developed. Rebuilding and cleaning up the complex is a long-term, costly undertaking. There are no quick fixes on the horizon. With this in mind, we believe it wise that DOE takes the time now to properly organize itself to manage the actions needed to address the problems it faces. This managerial restructuring will likely continue this year as DOE attempts to change its "culture" and acquire the necessary expertise to effectively deal with the problems.

DOE'S FISCAL YEAR 1991 BUDGET

Finally, I would like to briefly discuss DOE's fiscal year 1991 budget request for addressing problems of the nuclear weapons complex. Currently, of the \$8.6 billion requested for operating the complex, we estimate that about \$1.9 billion is for modernization activities, including safety upgrades. In addition to the \$8.6 billion, DOE is requesting approximately \$2.8 billion for environmental restoration and waste management, most of which is for the complex.

DOE's budget request represents a continued increase of funding to deal with its problems. In the modernization area, the \$1.9 billion represents an increase of 15 percent over DOE's fiscal year 1990 budget. These funds will allow DOE to continue design work on new production reactors, renovate key facilities, and pursue safety upgrades. In the environmental restoration area DOE is seeking \$849 million, which represents an increase of nearly 30 percent and will allow for the continued characterization of DOE environmental problems at inactive waste sites and design and construction work on some restoration activities. For waste management, DOE is seeking about \$1.5 billion which is an increase of 23 percent, and, finally, to bring its facilities into compliance with environmental laws DOE is seeking \$152 million, which is an increase of about 22 percent.

While DOE is requesting increased funding for addressing its problems, it is important to note that the funding has not peaked. In fact, the 1991 budget only represents a small down payment on what will be needed to address the problems of the complex. This is particularly true in the environmental restoration area where DOE is requesting \$849 million for a problem that may eventually cost from \$35 billion to \$65 billion to resolve. According to DOE's five-year plan, funding for environmental restoration will continue to increase over the next 5 fiscal years and may reach a total of over \$1.5 billion in fiscal year 1995. Higher funding levels will likely be needed in subsequent years.

Because of the magnitude of the problems facing DOE and the limited resources available in a deficit era, the budget request will be closely scrutinized. In our view, there are two key questions:

-- Is DOE's funding for modernization appropriate?

-- Is DOE's funding for environmental cleanup sufficient?

In 1988, DOE issued a modernization plan that called for a multi-billion dollar restructuring of the complex. New facilities and reactors were to be built, others upgraded, and other facilities phased out. DOE officials have informed us that this plan is being revised and that important changes are being studied.

The 1991 budget, nevertheless, includes about \$1.9 billion for modernization, including design work on two new reactors, restart operations on DOE's Savannah River reactors, and renovation of plutonium operations at the Rocky Flats Plant. Thus, modernization is continuing without benefit of an overall approved strategic plan. Questions about the need for additional plutonium production capabilities, two new production facilities, and upgrading facilities which may be phased out, carry with them important budgetary implications.

The next key question that will be discussed during the budget process is the adequacy of funding for environmental problems. DOE's fiscal year 1991 request for environmental restoration and waste management is approximately \$2.8 billion. The five-year plan, however, called for \$3.3 billion in fiscal year 1991. The difference is because (1) DOE is not funding some of the lower priority items designated in the five-year plan, and (2) DOE anticipates some delays in obtaining the necessary environmental permits. The low priority items not funded in the 1991 budget include about \$200 million in disposal fees for high-level radioactive waste and some decontamination projects.

Along with considering the adequacy of DOE's 1991 budget, the Congress should give careful consideration to DOE's ability to effectively spend the funds. In this regard, DOE's own internal control evaluation report to the President dated December 28, 1989,

identified several material weaknesses that could impact on DOE's ability to rebuild and clean up the complex. These weaknesses include deficiencies in DOE's contracting management system and staffing inadequacies. Because programs growing as fast as DOE's can be very vulnerable to fraud, waste, and abuse, we have initiated a focused effort to review DOE's oversight of its contractors and contracting procedures. In carrying out this work we plan to examine the adequacy and technical capability of DOE's staff, the effectiveness of DOE's management structure, and DOE's budgeting process.

SUMMARY

In summary, the problems facing the complex are still critical. The nation's ability to produce weapons grade nuclear material is virtually nonexistent because a number of key facilities are shut down. Widespread environmental contamination exists at many DOE sites and the full extent of the environmental problems is not known.

During the past year, DOE has taken a number of steps to better deal with these problems. Such actions are important as DOE develops an organization and management system with the capability to effectively plan, implement, and oversee corrective actions. We believe it is wise that DOE takes the time now to properly organize itself to manage the actions needed to address the many problems it

faces. Moreover, a clearly defined organizational structure, sufficient technical staff, and cohesive management systems will all be needed to ensure funds are effectively spent to correct problems that have been neglected for many years.

The 1991 budget includes increases over last year and further increases in DOE's budget to deal with its problems will likely continue over the next several years. During this time, key issues such as how should the complex be modernized and can cleanup be expedited will be continually raised. Hopefully, such discussions on these key issues will also provide the opportunity to develop a national consensus on how we deal with the problems. Such a consensus is necessary to maintain strong congressional and public support for the enormous expenditures that are needed.